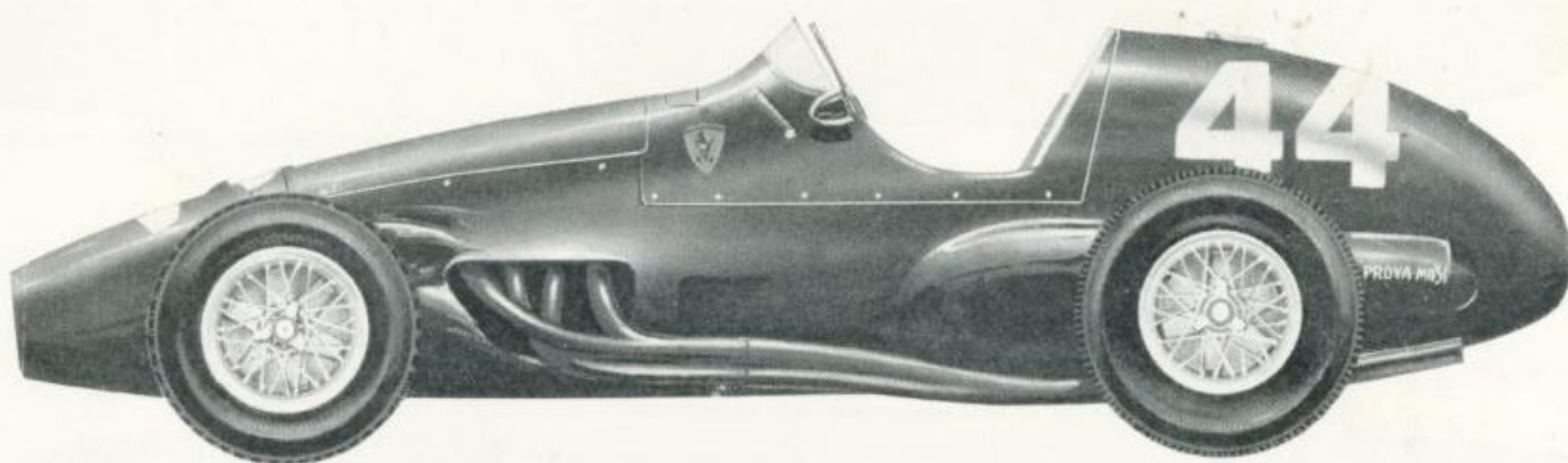


The Ferrari Tipo 625 & 555



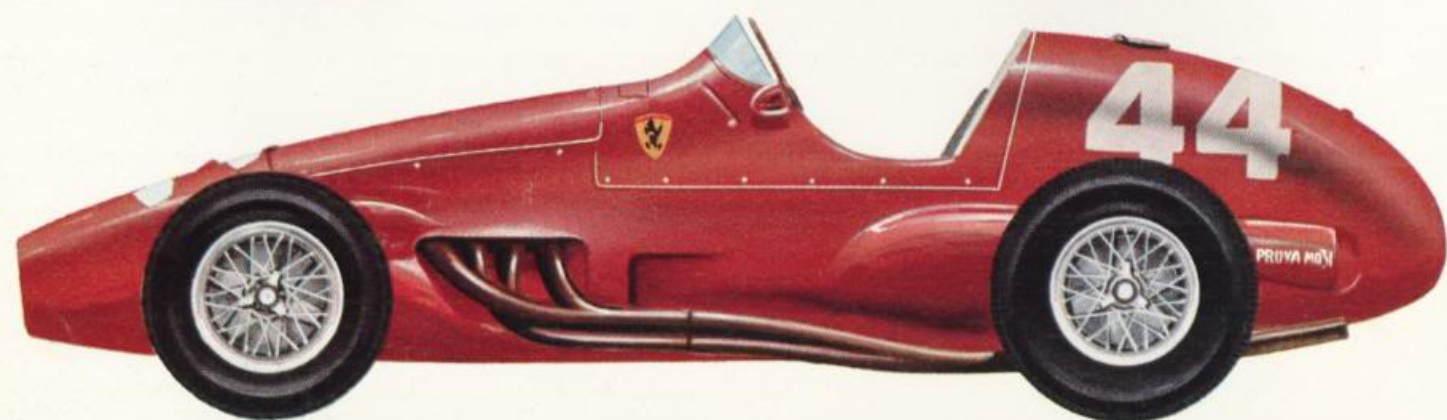
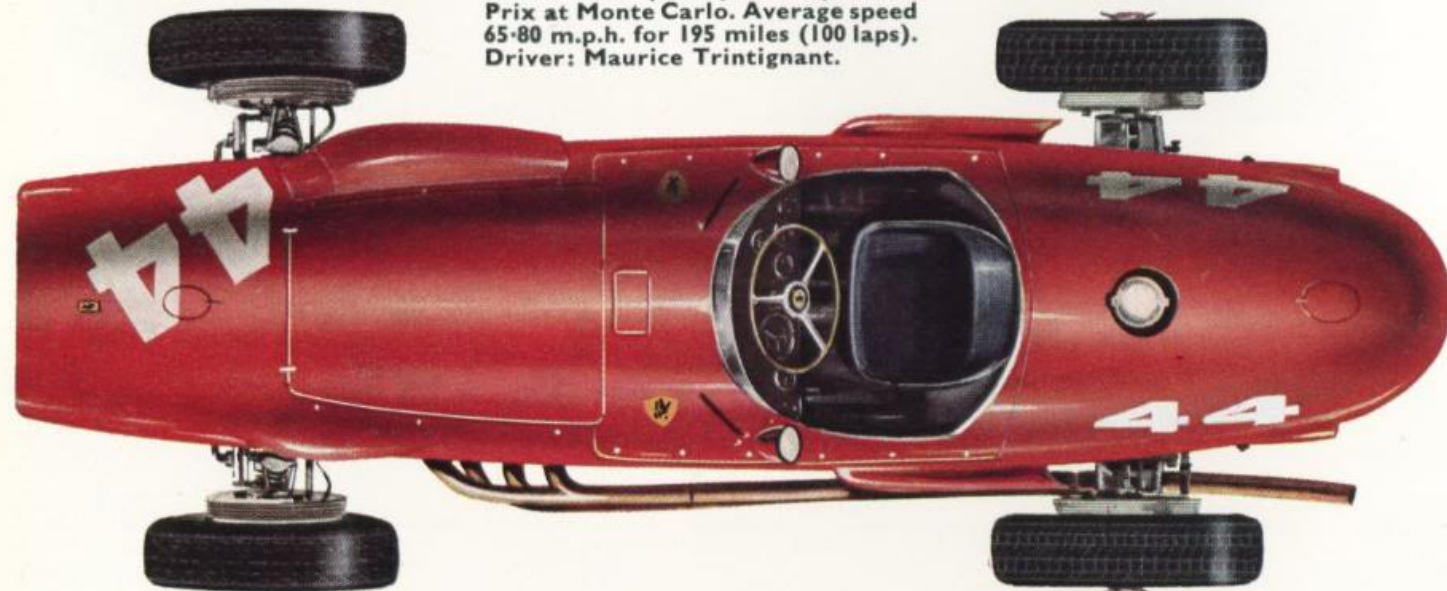
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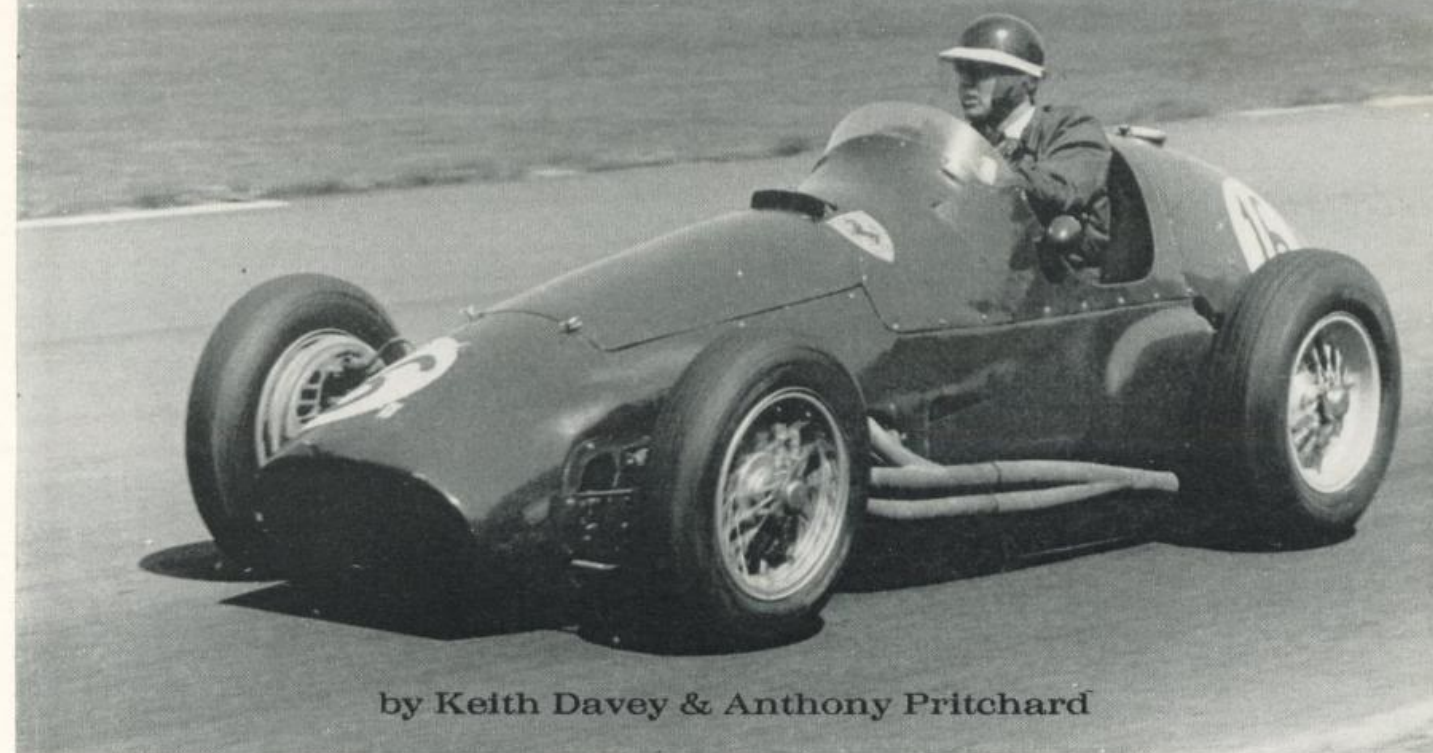
PROFILE PUBLICATIONS



THE FERRARI TIPO 625, winner of the 1955 European (Monaco) Grand Prix at Monte Carlo. Average speed 65-80 m.p.h. for 195 miles (100 laps). Driver: Maurice Trintignant.



The Ferrari Tipo 625 & 555



by Keith Davey & Anthony Pritchard

Hawthorn's 625 in the 1955 British Grand Prix at Aintree. (Photo: T. C. March)

By the beginning of 1954, after only five years' participation in Grand Prix racing, Ferrari was already the most prolific, successful and controversial of the ten or so racing car manufacturers building single-seaters at that time. After a determined start with the 1½-litre supercharged and 2-litre unsupercharged V-12 Formula One and Two cars, he had completely dominated Formula 2 racing since its inauguration in 1948 and had challenged and finally vanquished the seemingly invincible Alfa Romeo 158s with the 4½-litre Grand Prix car in 1951.

It was during 1950 that Ferrari first became aware of the effective use which the H.W.M. team were making of their rather under-powered 4-cylinder engines on the slower circuits, where their favourable torque characteristics meant that the Ferraris were being quite hard-pressed. This prompted Ferrari to commission a 4-cylinder Formula 2 engine for racing during 1952-53 and Lampredi had it ready by the Modena G.P. at the end of the 1951 season. Ascari showed the potential of the 4-cylinder car by winning the race by a wide margin from the V-12 2-litre car of Gonzalez. During the two years in which all major events were run to Formula 2 regulations, Ferrari's new cars were beaten only twice—at Rheims in 1952 by the very fast, but equally unreliable Gordini, and in the 1953 Italian G.P. by the A6SSG Maserati of Fangio.

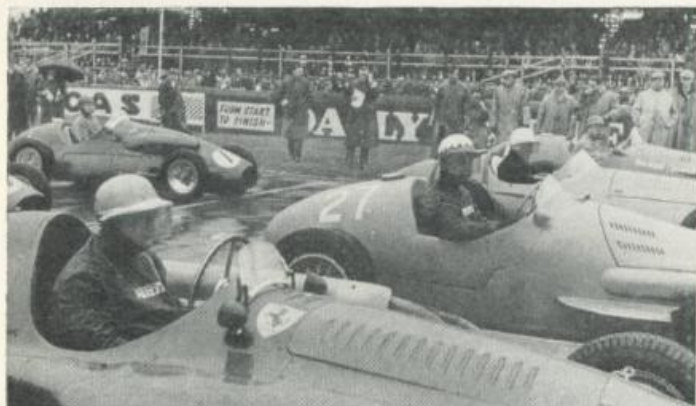
Always looking to the future, however, Ferrari began development work on a 2½-litre car for the 1954 season. Two cars had already been built with V-12 engines, and took 2nd and 3rd places at Syracuse in 1951, but at Bari in the same year there had appeared a 4-cylinder car with a capacity of 2,490 c.c. (94 × 90 mm.), with which Taruffi took 3rd place. This car was not seen again until the Formule Libre Buenos Aires G.P. in 1953, when three were entered for Farina, Villorresi and Hawthorn, and took first three

places in that order. These three cars were virtually identical to the Tipo 625 raced the following year.

Also during 1953, groundwork was being done on what was to become the 555 Squalo of 1954, and prototypes for the 1954 season, designated the 553, appeared in 2-litre form at Monza for the Italian G.P. Because of their unsatisfactory handling, the two cars were relegated to the junior members of the team, Maglioli and Carini.

THE 625

The Tipo 625 was, therefore, a 4-cylinder design with a capacity of 2,490 c.c. (94 × 90 mm.). The light alloy block and crankcase were cast in one unit and the one-piece crankshaft ran in five Thinwall lead indium bearings. The cylinder head was also of light alloy and incorporated the water jackets with the steel cylinder liners screwed into recesses in the combustion chambers which obviated the need for a head gasket. There were two valves per cylinder inclined at an angle of 58 degrees and twin overhead camshafts driven by a train of gears from the nose of the crankshaft actuated the valves via two hair-pin springs with light alloy inverted tappets and double coil springs. The same train of gears drove the oil and water pumps and the twin Marelli magnetos. There were twin plugs per cylinder. Lubrication was on the dry sump principle with a 15-litre oil tank mounted in the tail behind the 38-gallon fuel tank. Twin fuel pumps were fitted, one belt-driven from the prop-shaft and the other on the end of a camshaft. The fuel used was a mixture of 40 per cent methyl alcohol, 30 per cent benzole and 30 per cent 100-octane petrol; to this was added an extra 1 per cent of castor oil. In its original 1954 form, the 625 or Tipo 'Argentina' developed 230 b.h.p. at 7,000 r.p.m., but the later version, as driven by Trintignant in the 1954 German G.P., with a 12.8 : 1 compression ratio and strengthened bottom



Gonzalez (foreground) on the starting grid at Silverstone for the 1954 Daily Express Trophy. The car is the 555 Squalo. (Photo: T. C. March)



The winner at Barcelona in 1954—Hawthorn's 555 Squalo, fitted with coil spring front suspension. Note the litter collected in the air intake. (Photo: G. Goddard)

end, developed the following outputs:

B.H.P.	R.P.M.
76.7	2,500
92.1	3,000
145.6	4,000
199.5	5,000
230.8	6,000
244.8	6,800

Transmission was by a multi-plate clutch to a 4-speed gearbox in unit with the rear axle; the driving plates of the clutch were of treated steel and the driven plates of hard aluminium. The gearbox was housed in a light alloy casing split vertically and the final drive incorporated a limited slip differential.

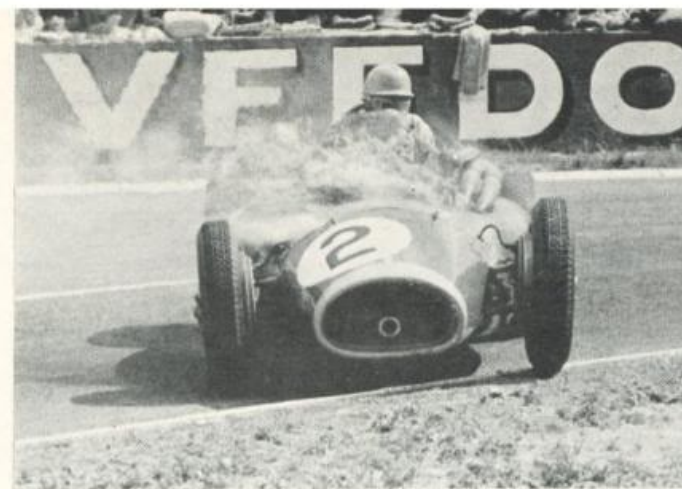
The chassis frame was of the ladder-type, comprising two oval-section tubular members with heavy-

section cross-bracing at the front and rear, and light-section cross-bracing at the rear of the engine and in front of the gearbox unit. A tubular superstructure was built up round the cockpit to support the body panels and provide additional rigidity. Front suspension was by a low-mounted transverse leaf spring and double wishbones, the lower ones being connected directly to the spring. A de Dion axle was used at the rear with the tube passing behind the final drive casing and was located on each side by two parallel radius arms; a transverse leaf spring ran below the final drive unit. The steering was of the worm and wheel type and incorporated a two-piece steering column. Hydraulic two-leading shoe brakes were fitted to all four wheels; the shoes were of light alloy as were the finned drums which were 13.8 in. in diameter. 16 in. wheels were used all round, being 5 and 5½ in. wide front and rear.

THE 555 'SQUALO'

Although of very different appearance to the 625, the 'Squalo' was in essence purely a development of this model. The only substantial modifications made to the prototype 553 for the 2½-litre Formula were to increase the bore and stroke from 93 × 73.5 mm. to 100 × 79.5 mm., giving a capacity of 2,497.56 c.c. Just as on the 625 the twin overhead camshafts were driven by a train of gears from the nose of the crankshaft, but the two valves per cylinder were inclined at an included angle of 100 degrees. Generally, the design of the one-piece crankcase and block and cylinder head was similar to the 625, including the operation of the valves and the method of seating the cylinder liners. However, the crankshaft webbing was strengthened and the bearing area enlarged, as on the later versions of the 625. Two Weber type 52 DCOA carburettors were fitted, a type specially designed for this engine and, as on the 625, these were mounted on a framework welded to a longitudinal chassis tube with supplementary rubber mountings to reduce the effects of engine vibration. The power output of the engine on a 12 : 1 compression ratio was initially 250 b.h.p. at 7,500 r.p.m. Although it was a higher revving engine than the 625, piston speed was lower at 19.5 metres per second, compared with 21 m.p.s. for the 625. There were individual exhaust pipes for each cylinder, those from numbers one and four cylinders merging, as did those from the other two cylinders. These pipes joined into a single tail pipe running high up alongside the cockpit.

Hawthorn adjusts his goggles in the 1954 French Grand Prix.



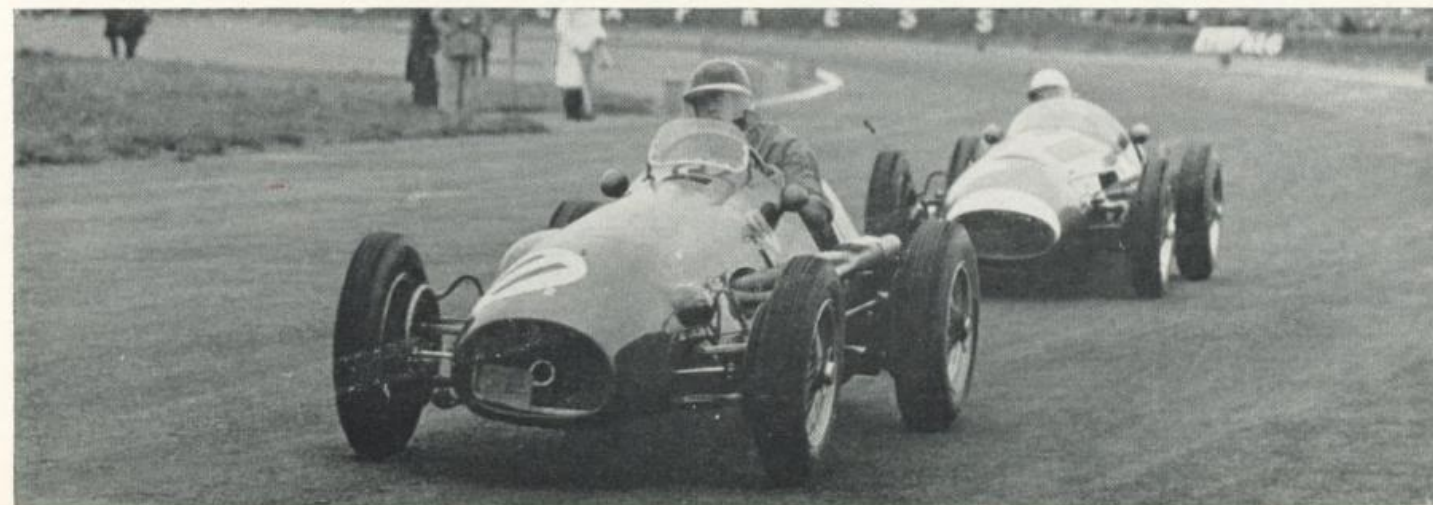
The result of a major engine blow-up—Gonzalez at Rheims, 1954 French Grand Prix.

Transmission was as on the 625 by means of a 4-speed gearbox in unit with the rear axle, and driven through a multi-plate clutch. Drive from the gearbox was taken through a pair of spur gears to the differential. Drive to the wheels was by double universally-jointed half-shafts. Because of the use of side-mounted fuel tanks, there was only a small tank in the tail and this facilitated removal of the final drive, complete with casing, for axle ratio changes.

The chassis had a shorter wheelbase at 7 ft. 0 in. and both front (4 ft. 1 in.) and rear track (3 ft. 11½ in.) were narrower. The multi-tubular space frame tapered towards the rear and had a transverse tubular structure at the front on which the steering box was mounted and which located the front suspension. This was by unequal length wishbones with ball-joint attachment to the hubs and a transverse leaf spring attached to the lower wishbones. At the rear there was a de Dion axle with the tube, which ran in front of the final drive, located by a block sliding on a vertical guide. There were twin radius arms on each side and a transverse leaf spring running above the final drive unit. Houdaille shock-absorbers were again used all round.

Not only was it intended that the 555 engine should be considerably more robust than the 625, but the new car was also lower and, by the use of the side tanks, the better distribution of the fuel load should have improved the handling qualities. The appearance of the 555 led to it becoming known as the 'Squalo' or shark.

Hawthorn, on his way to 2nd place in the 1954 British Grand Prix with a 625, leads Moss' 250F Maserati. (Photo: T. C. March)

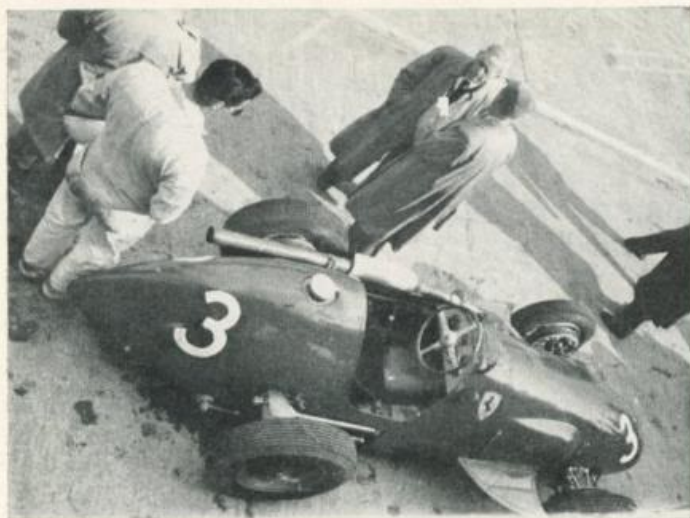


THE 1954 SEASON

For the first two races of the season, Ferrari used the 625 model. In the Argentine G.P. the team faced stiff opposition from the new Maserati 250F, also a derivative of the previous year's Formula 2 car. The early laps of the race were led by Gonzalez' Ferrari (running in Argentine colours) followed by the cars of Farina and Hawthorn; but then the first of several heavy showers fell, and after two laps Fangio's Maserati took the lead. When the rain stopped, Gonzalez and Farina overtook Fangio, but Hawthorn spun, was push-started by spectators and disqualified. When the rain again started to fall, Fangio regained the lead with the Maserati, only to stop to fit a set of rain tyres. According to Ugolini, the Ferrari team manager, five instead of the permitted three mechanics worked on the Maserati during the tyre change, so he lodged a protest, and on the assumption that it would be upheld slowed the Ferraris down. Fangio, however, regained the lead, the protest was rejected, and Farina and Gonzalez had to be content with 2nd and 3rd places, with the Ecurie Rosier entry of Trintignant 4th and Maglioli, who had never been in the running, 9th. The Ferraris should have scored an easy victory in the Formule Libre Buenos Aires G.P. after Fangio retired with axle trouble on the 9th lap. However, Farina retired, also with rear axle failure when in the lead, Hawthorn spun on the last lap when the engine seized as the result of a con-rod failure, and Trintignant found himself an unexpected winner. Farina, who had taken over from a rather sick Gonzalez, was 3rd, and Hawthorn was classified 6th.

First event of the European season was the Syracuse G.P., where the 555 made its debut. The race proved a disaster for Ferrari, as on the 5th lap, when Marimon's Maserati was leading Hawthorn and Gonzalez, the 250F driver hit a straw bale. A cloud of straw obscured Hawthorn's vision, and his 625 crashed into a wall and burst into flames. Hawthorn leaped out of his car and Gonzalez stopped to help him extinguish his clothing. The Squalo rolled forward and caught fire too; both cars were completely destroyed and Hawthorn received quite bad burns. After Marimon's retirement, the race was won by Farina with Trintignant, who had been invited to join the team after his South American success, 2nd.

There were four minor events before the first Grande Epreuve in Europe. At Pau, Gonzalez with a 625 was eliminated when in the lead; the crankshaft



Hawthorn's 625 in the pits at the 1954 German Grand Prix. (Photo: Louis Klemantaski)



Ascari's only drive for Ferrari in 1954—the Italian Grand Prix, where he drove a 625 fitted with a 555 engine. (Photo: Keystone Press Agency Ltd.)

broke when the car was travelling at high speed, and he only managed to control it with great difficulty. As Farina was slowed by a misfire in the early stages of the race and a pit stop for a wheel change after contact with Marimon's Maserati dropped him to the tail of the field, a surprise win was gained by Behra's Gordini from Trintignant. The more usual Ferrari state of affairs reasserted itself at Bordeaux, where the cars of Gonzalez, Manzon and Trintignant took first three places. The 555 reappeared in the *Daily Express* Trophy at Silverstone. The race was run in two heats and a final, and Gonzalez won his heat in



Herrmann's "Stromlinienwagen" Mercedes leads Hawthorn in the 1954 German Grand Prix. (Photo: Louis Klemantaski)

the wet at 82.79 m.p.h., while the winning time of Trintignant in his heat was 87.37 m.p.h. Between the heats and the final Gonzalez' car broke down, with the result that he took over Trintignant's car and his place on the front row of the grid. Trintignant in turn took over Maglioli's car. Not surprisingly, the Argentinian gained an easy win with the 625, but it was subsequently alleged that the switch was made simply to give Gonzalez a more favourable position on the grid, and that the 555, which was supposed to have seized up, was started up after the event. Final minor race before the Belgian event was the Bari G.P., where Gonzalez and Trintignant were 1st and 2nd with 625s and Maglioli 7th.

For the Belgian G.P. at Spa, two 555 Squalos were entered for Farina and Gonzalez, and Hawthorn and Trintignant drove 625s with 555 engines. Although Gonzalez and Farina were both placed on the front row of the starting grid, with Fangio's Maserati, Gonzalez retired at the end of the first lap with a broken oil pipe and Farina, having led for much of the way, was forced out on lap 14 by ignition trouble. This left Fangio with a considerable lead over Hawthorn and Trintignant in 2nd and 3rd places. Hawthorn then pulled into pits, unable to carry on because of exhaust fumes leaking into the cockpit, whereupon the car was taken over by Gonzalez. Trintignant finally finished 2nd, about 20 sec. behind Fangio, and Gonzalez did well to bring Hawthorn's car up into 4th place.

It was at Rheims that the Mercedes-Benz team re-entered Grand Prix racing and it was obvious that the Ferraris were going to have a very difficult time. Fangio and Kling were the fastest two in practice and Gonzalez (555) and Trintignant (625 with 555 engine) were over 6 sec. slower than Fangio's Mercedes and were placed on the third and fourth rows of the grid respectively. Despite the fact that Gonzalez fully extended the Ferrari in the first few laps, he soon dropped back and the engine finally blew up in a most spectacular manner. The Ferraris of Hawthorn and Trintignant suffered a similar fate and only Manzon with a privately entered 625 managed to finish the race, in a very creditable 3rd place, but well over a lap behind the two Mercedes-Benz.

Before the next Grande Epreuve, Trintignant took a comparatively easy 1st place in the Rouen G.P. with a 625 against Gordini and private Maserati

The 1954 Squalo Grand Prix car. Note the side-mounted fuel tanks. (Photo: Denis Jenkinson)



opposition. Hawthorn broke a con-rod near the end of the race and was disqualified for receiving a push towards the finish from his team-mate. Trintignant's car was a normal 625, but Hawthorn drove a 625 with an engine which was half 625 and half 555. The bottom end of the 625, which had proved more reliable, was combined with the Squalo cylinder head, which was potentially a more powerful design.

The next clash of the Ferrari and Mercedes teams was in the British G.P. at Silverstone. This comparatively slow circuit was well suited to the torque characteristics of the 4-cylinder Ferrari engines, and as the rather featureless corners made it difficult to line up the fully streamlined German cars, the two teams were now much more closely matched. All the Ferraris were 625s with engines like that first tried at Rouen. On this occasion, despite having the services of Ascari and Villoresi, the works Maseratis were not really in the running, and in any case arrived too late for official practice. The fastest in practice were:

1. FANGIO	1 min. 45 sec. (at the expense of damaged bodywork).
2. GONZALEZ	1 min. 46 sec.
3. HAWTHORN	1 min. 46 sec.
4. MOSS (Maserati)	1 min. 47 sec. (private entry).
5. BEHRA (Gordini)	1 min. 48 sec.
6. KLING	1 min. 48 sec.
7. SALVADORI (Maserati)	1 min. 48 sec. (private entry).
8. TRINTIGNANT	1 min. 48 sec.

Gonzalez took the lead at the start and was unchallenged throughout the race. At the beginning, Fangio's Mercedes was in 2nd place, but he was having a difficult race, taking to the grass on innumerable occasions, and was overtaken by both Moss and Hawthorn. When Moss retired with rear axle failure, Hawthorn took 2nd place ahead of the ailing Mercedes. Trintignant finished 5th.

After a win by Trintignant against private owners in the Caen G.P., four 625s were entered in the European G.P. at the Nurburgring. Two were standard 625s for Trintignant and Taruffi, but Gonzalez and Hawthorn drove 625s with engines based on the crankcase of the 735 sports model and the 555 cylinder head. Mercedes fielded four cars, three of which had new bodywork with exposed wheels. The Maserati team, shattered by Marimon's fatal crash in practice, were withdrawn. Fangio took the lead at the start from Gonzalez, but the latter, upset over Marimon's death, gradually fell back and on the 16th lap handed over his car to Hawthorn, who had retired with engine trouble. After Kling's stop for attention to the rear suspension, Hawthorn took 2nd place with Trintignant 3rd and Taruffi 6th.

Four cars were fielded in the Swiss G.P., 625s with 735/555 engines for Gonzalez, Hawthorn and Trintignant and an ordinary 555 for Maglioli. Gonzalez was fastest in practice, but once again the Mercedes, aided by their very low bottom gear, took the lead at the start, Kling heading Fangio. Kling, however, spun off on lap one, giving Gonzalez a 2nd place which he retained at the finish. Maglioli was classified 7th out of 8 finishers.

By now, Ferrari was getting quite desperate. In 1953 he had won all but one Grande Epreuve entered. So far, in 1954, he had only won one out of six entered. In an effort to achieve more satisfactory results, five very varied cars were entered in the Italian G.P. at Monza. As the D.50 Lancia was still not raceworthy, he managed to secure for this race the services of his former champion driver, Alberto Ascari, who had been loaned to Maserati for most of the season. Gonzalez drove a 555, Ascari a 625 with a 555 engine. Hawthorn and Trintignant drove 625s with the 625/555 engine and Maglioli a normal 625. Ascari led the race for a considerable distance, but retired with a broken valve, but Hawthorn finished 2nd and Gonzalez, who had retired, took over Maglioli's car, worked it up to 3rd place and then handed it back to the 'owner'. Trintignant was 5th.

Final event of the season was the Spanish G.P., where only two cars were entered. Hawthorn drove into 1st place a 555, now fitted with front suspension by coil springs and an anti-roll bar. Trintignant retired his 625 with a 555 engine because of gearbox trouble. Hawthorn's victory, although well-deserved, was due largely to the early demise of the new Lancias and the poor performance of Fangio's Mercedes, slowed by engine trouble. Nearly all the cars in this race suffered overheating as a result of the air intakes collecting litter thrown down by the spectators.

1954 had not proved as gratifying a season as Ferrari's past experience with the 4-cylinder cars led him to expect. Nevertheless Gonzalez took 2nd place in the Driver's World Championship with 25½ points to Fangio's 42.

MODIFICATIONS FOR THE 1955 SEASON

625

A 5-speed gearbox and the 555 engine were used in the main in 1955. The suspension was modified by



Cockpit shot of the 1954 625. (Photo: Louis Klemantaski)

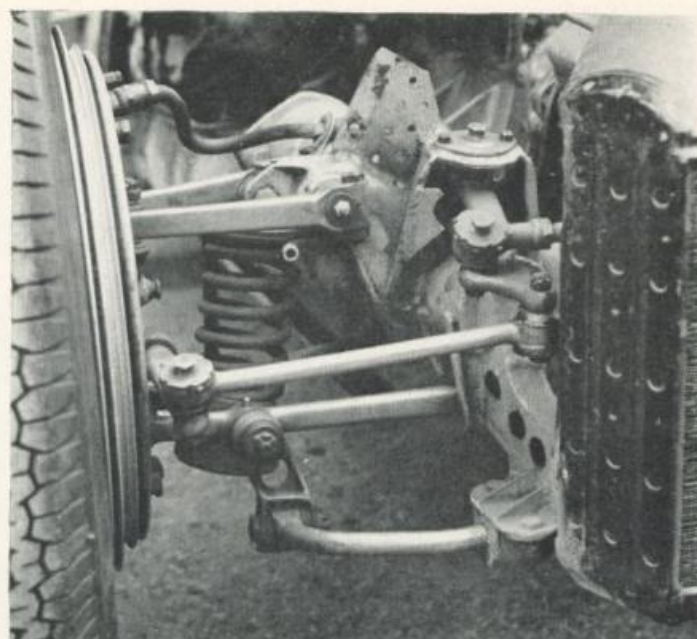
fitting coil springs at the front as used on the Squalo at Barcelona and by transferring the transverse leaf from below to above the final drive. The body was re-styled, so as to give the car a lower nose and slightly more aerodynamic lines.

555

These were much improved and were henceforth known as Super Squalos. A new multi-tubular space frame was used with cross-bracing and a tubular superstructure, locating the rear suspension and providing mountings for the body and fuel tanks. A larger fuel tank was fitted in the tail. Generally the lines of the car were sleeker, the air intake lower and wider.

THE 1955 SEASON

For the Argentine races, Ferrari entered a team of the improved 625s driven by Gonzalez, Farina and Trintignant with Maglioli as spare driver. The race was notable for the tremendous heat which overcame everybody except Fangio, who won with his Mercedes, and Mières. Gonzalez made fastest time in practice and held 2nd place until just after the first hour, when



Double wishbone and coil spring front suspension of the 1955 625.

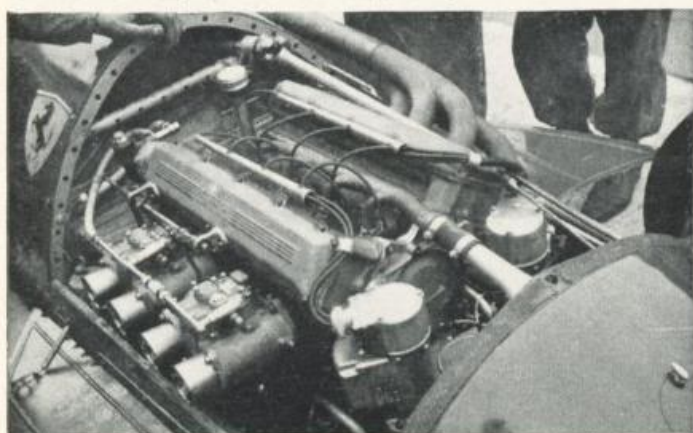
he was overcome by the heat. This car was subsequently driven by both Farina and Trintignant, and took 2nd place, while Farina's car (shared also by Gonzalez and Maglioli) was 3rd. The same cars ran in the Buenos Aires G.P., but had 3-litre sports engines. Of five cars entered, only Trintignant achieved a respectable placing—3rd. Two similar cars with 3-litre engines had been supplied to Peter Whitehead and Tony Gaze to drive in the New Zealand G.P. also held in January, and they took 2nd and 3rd places to Bira's Maserati.

Turin was a Lancia benefit and of three 625s entered, the sole finisher was Schell in 5th place. First race appearance of the Super Squalo was at Bordeaux. Two cars were entered for Farina and Trintignant, but they retired with gearbox and brake trouble respectively.

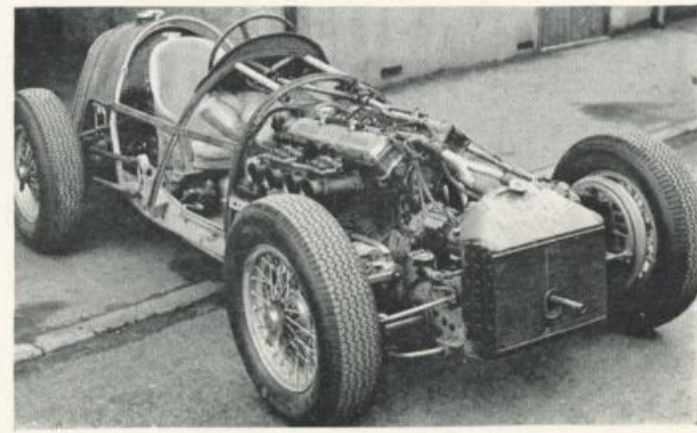
The first European Grande Epreuve was at Monaco, where Farina and Trintignant drove 625s and Schell and Taruffi 555s. The Ferraris were completely outclassed, but after the retirement of Moss and Fangio (Mercedes), and Ascari's Lancia had crashed into the harbour after a brake had locked, Trintignant found himself in the lead, and won, with Farina, who had made a long pit stop to sort out dented bodywork, 4th. Frère took over Taruffi's car and finished 8th, 14 laps in arrears.

The Belgian G.P. saw only 555s entered. Not unexpectedly, Fangio and Moss took first two places, but Farina, Frère and Trintignant were 3rd, 4th and

Induction side of the 1954 625 engine. (Photo: Louis Klemantaski)



The 1955 625.



5th. Zandvoort has never seemed a circuit suiting Ferraris, and all three Super Squalos entered were slow. Highest finisher was Castellotti, who had joined the team after Lancia's withdrawal from racing, in 5th place. Hawthorn, who had rejoined the team after a short spell with Vanwall, was 7th after transmission trouble.

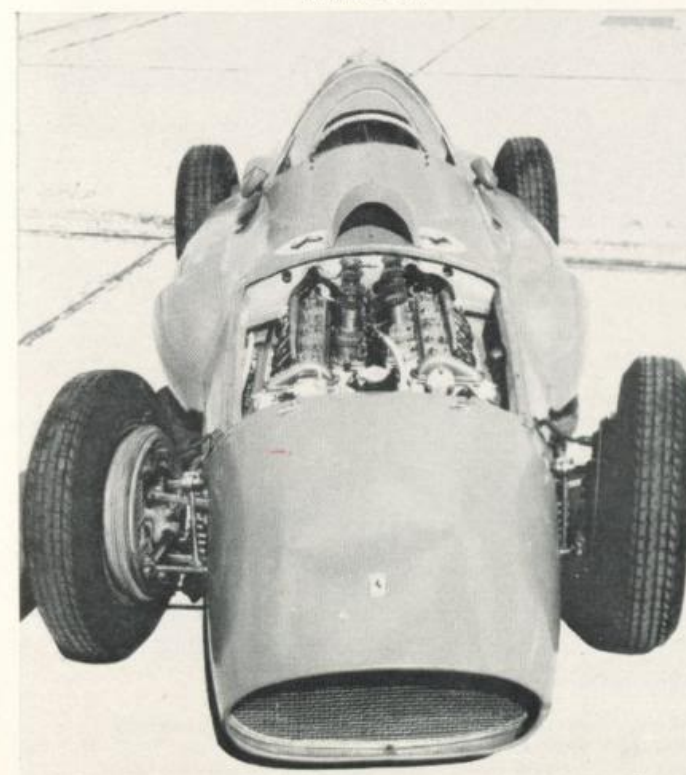
Because of the Le Mans disaster, the French, German, Swiss and Spanish events were cancelled. There remained, therefore, only two Grandes Epreuves. In the British event at Aintree, Ferrari fielded the 625s on their last works appearance, but they were so outclassed that the fastest, Castellotti, was on the fourth row of the grid. Only one car finished, that of Hawthorn in 6th place, which he handed over to Castellotti as he was feeling unwell. By the Italian G.P., Ferrari had received the V-8 cars from Lancia who had given up racing after Ascari's death. However, the cars were throwing tyre treads in practice, so the 555s which were to supplement them were run instead. They now had 5-speed gearboxes, and minor suspension modifications. As a result they handled much better than many of their rivals on the bumpy Monza concrete, and Castellotti, whose time with a Lancia had put him on the second row of the grid, finished 3rd. Maglioli and Trintignant were 6th and 8th.

POSTSCRIPT

Although this race marked the effective conclusion of the racing careers of both the 625 and 555, in the 1956 Argentine G.P. Olivier Gendebien drove into 5th place a Super Squalo fitted with a Lancia V-8 engine. This handled very badly, and the experiment was not continued further. A sole example has survived. This is said to be the car which won the 1955 Monaco race and is now owned by Ian Sievwright. Although a 1955 625, it has a 4-speed gearbox and an ordinary 625 engine. Furthermore, it has no chassis number.

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An unsuccessful experiment—the Super Squalo with a Lancia V-8 engine, which was driven by Gendebien in the 1956 Argentine Grand Prix.



Farina with Super Squalo at Spa, 1955. (Photo: Louis Klemantaski).

625 ENGINE PERFORMANCE AND MODEL IDENTIFICATION

Power at r.p.m.	Design Features
230 7000	Two twin-choke Weber 50 DCO carburettors; C.R. 11:1. As raced in the Argentine, 1954.
250 7500	Two twin-choke Weber 50 DCOA3 carburettors; C.R. 12:1. A revised version with 555 engine which first appeared at Spa, 1954.
250 7500	Two twin-choke Weber 50 DCOA3 carburettors; C.R. 12:1. A revised version incorporating the bore and stroke of the 555 with the crankcase of the 625 which first appeared at Rouen, 1954.
250 7500	Two twin-choke Weber 50 DCOA3 carburettors; C.R. 12:1. A further revised version using the crankcase of the 735 sports model and 555 cylinder head. First appeared at Nurburgring, 1954.
250 7500	Two Weber twin-choke 52 DCOA3 carburettors; C.R. 12.8:1. 1955 version with double wishbone and coil spring front suspension and leaf spring mounted above instead of below final drive unit; 5-speed gearbox and restyled body.

SPECIFICATION (1955 MODEL):

ENGINE:
Capacity: 2490 c.c. (94 × 90 mm.) No. of cylinders: 4 in line. Valves: two per cylinder inclined at an included angle of 58 degrees. Valve actuation: twin overhead camshafts. Ignition: twin Marelli magnetos and twin plugs per cylinder. Lubrication: dry sump.

TRANSMISSION:
Clutch: multi-plate type. Gearbox: 4 or 5-speed in unit with rear axle; normal ratios for 4-speed box, 1st, 2:338:1, 2nd, 1:455:1, 3rd, 1:135:1 and top, 1:1.

Final Drive: direct drive from gearbox main and lay shafts and incorporating ZF limited slip differential.

CHASSIS:
Frame: tubular ladder-type with cross-bracing and light tubular superstructure. Front Suspension: double wishbones, coil springs, anti-roll bar and Houdaille dampers. Rear Suspension: de Dion axle, twin parallel radius arms, lateral leaf spring and Houdaille dampers. Steering: worm and wheel, turning circle approx. 33 ft. Brakes: hydraulic two-leading shoe, with light alloy shoes and 13.8 in. finned light alloy drums. Wheel Size: front: 5.00 x 16, rear: 5.50 x 16. Tyre Size: front: 5.50 x 16, rear: 7.00 x 16. Fuel Capacity: 38 gallons, tank in tail. Oil Capacity: 15 litres. Exhaust System: four single pipes emerging low down on left-hand side and merging into twin tail pipes.

DIMENSIONS:
Wheelbase: 7 ft. 2½ in. Front track 4 ft. 3½ in. Rear Track: 4 ft. 1 in. Dry Weight: 12½ cwt.

555 ENGINE PERFORMANCE AND MODEL IDENTIFICATION

Power at r.p.m.	Design Features
250 7500	The standard 1954 model which first appeared in tests at Monza in late 1953.

250	7500	A revised version with stronger connecting rods, modified valves and coil spring front suspension which appeared at the 1954 Spanish G.P.
270	7500	A further revised version, the Super Squalo, with new chassis frame, larger rear fuel tanks and modified body which appeared in 1955.
270	7500	Version modified by Massimino, with 5-speed gearbox and detail changes to the chassis which ran in the 1955 Italian G.P.
260	8000	Super Squalo fitted with Lancia V-8 engine which ran in the 1956 Argentine G.P.

SPECIFICATION (1954 MODEL):

ENGINE:

Capacity: 2497.56 c.c. (100 × 79.5 mm.) No of Cylinders: 4 in line. Valves: two per cylinder inclined at an included angle of 100 degrees. Valve actuation: twin overhead camshafts. Ignition: twin Marelli magnetos and twin plugs per cylinder. Carburettors: two twin-choke Weber 52 DCOA. Compression ratio: 12:1. Lubrication: dry sump.

TRANSMISSION:

Clutch: multi-plate type. Gearbox: 4-speed in unit with the rear axle. Final Drive: through spur gears to crown wheel and pinion; drive to the wheels by double universally jointed half-shafts.



The last of the four-cylinder Ferrari racing cars—Hawthorn with the Massimino-modified 555 Super Squalo in the 1955 Italian Grand Prix. (Photo: Motor Sport)

CHASSIS:

Frame: multi-tubular space frame with transverse tubular structure at the front. Front suspension: double wishbones, transverse leaf spring and Houdaille dampers. Rear suspension: de Dion axle, twin radius arms, transverse leaf spring and Houdaille dampers. Steering: worm and wheel. Fuel tanks: linked side tanks and small tank in tail. Exhaust system: four separate pipes merging into two pipes and then into a single tail pipe.

DIMENSIONS:

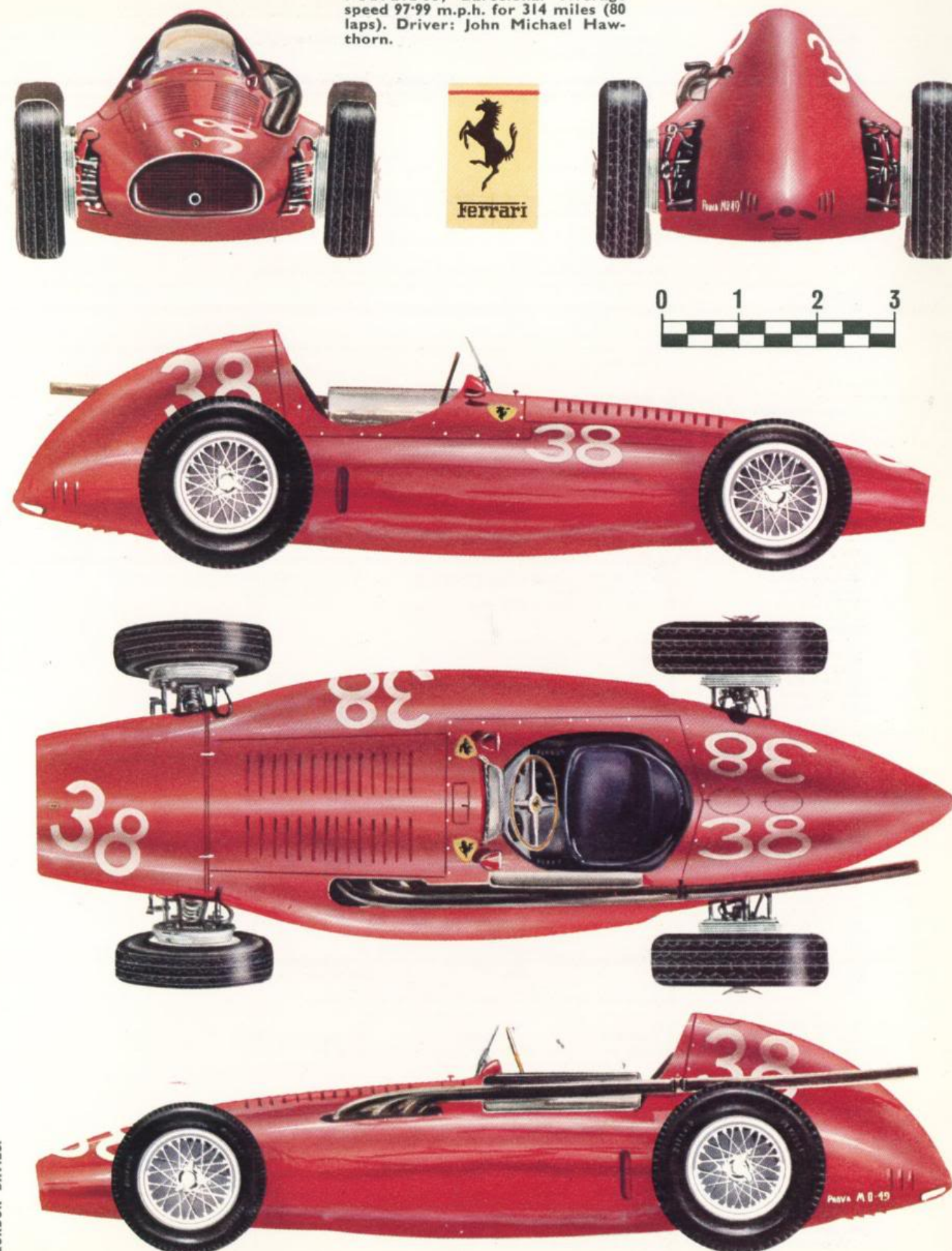
Wheelbase: 7 ft. 0 in. Front track 4 ft. 1 in. Rear track 3 ft. 11½ in.

RESULTS

1954

Argentine G.P. Buenos Aires Autodrome 17th January 3 hours GRANDE EPREUVE	2nd G. FARINA 625	3rd F. GONZALEZ 625	4th M. TRINTIGNANT 625 (Ecurie Rosier Entry)	9th U. MAGLIOLI 625
Buenos Aires City G.P. Buenos Aires Autodrome 31st January 175 miles FORMULE LIBRE	1st M. TRINTIGNANT 625 (Ecurie Rosier Entry) 8th U. MAGLIOLI 625	3rd GONZALEZ/FARINA 625	6th M. HAWTHORN 625	Retired—M. Hawthorn, 625, spun off and disqualified for receiving push start from spectators.
Syracuse G.P. Syracuse 11th April 268 miles	1st G. FARINA 625 95.32 m.p.h.	2nd M. TRINTIGNANT 625	Retired—M. Hawthorn, 625, crash; F. Gonzalez, 555, car burnt out.	
Pau G.P. Pau 19th April 193 miles	2nd M. TRINTIGNANT 625	5th G. FARINA 625	6th L. ROSIER 625 (Ecurie Rosier Entry)	Retired—F. Gonzalez, 625, broken c. ankshaft.
Bordeaux G.P. Bordeaux 9th May 188 miles	1st F. GONZALEZ 625 60.59 m.p.h.	2nd R. MANZON 625 (private entry)	3rd M. TRINTIGNANT 625	
Daily Express Trophy Silverstone 15th May 102 miles	Heat 1 1st F. GONZALEZ 555 Heat 2 1st M. TRINTIGNANT 625 Final 1 1st F. GONZALEZ 92.78 m.p.h.	4th U. MAGLIOLI 625 2nd R. PARNELL 625 (private entry) 5th M. TRINTIGNANT	9th L. ROSIER 625 (Ecurie Rosier Entry) 3rd R. MANZON 625 (private entry) 6th L. ROSIER	Note: Gonzalez' car seized up between heat and final and he took over Trintignant's car. Retired in the final—Manzon, transmission failure; Parnell, broken prop-shaft.
Bari G.P. Bari 23rd May 207 miles	1st F. GONZALEZ 625 85.08 m.p.h.	2nd M. TRINTIGNANT 625	7th U. MAGLIOLI 625	
Belgian G.P. Spa 20th June 315 miles GRANDE EPREUVE	2nd M. TRINTIGNANT 625 with 555 engine Retired—Gonzalez, 555, engine failure; Farina, 555, engine failure; J. Swaters, 625 (Ecurie Francorchamps entry), engine failure.	4th HAWTHORN/GONZALEZ 625 with 555 engine		
French G.P. Rheims 4th July 315 miles GRANDE EPREUVE	3rd R. MANZON 625 (private entry) Retired—Hawthorn, 555, engine failure; Gonzalez, 555, engine failure; Trintignant, 625 with 555 engine, engine failure; Rosier, 625, engine failure.			

THE FERRARI TIPO 555, winner of the 1954 Spanish Grand Prix at Pedralbes, Barcelona. Average speed 97.99 m.p.h. for 314 miles (80 laps). Driver: John Michael Hawthorn.



Rouen G.P. Rouen-les-Essarts 11th July 301 miles	1st M. TRINTIGNANT 625 81.87 m.p.h. Retired—Hawthorn, 625 with 625/555 engine, broken connecting rod, disqualified after receiving push from Trintignant.			
British G.P. Silverstone 17th July 263 miles GRANDE EPREUVE	1st F. GONZALEZ All cars 625s with 625/555 engines 89.69 m.p.h. Retired—Rosier, 625 (Ecurie Rosier entry), broken valve; Manzon, 625 (private entry), cracked cylinder head; Parnell, 625 (private entry), engine failure.	2nd M. HAWTHORN	5th M. TRINTIGNANT	
Caen G.P. La Prairie 25th July 131 miles	1st M. TRINTIGNANT 625 88.50 m.p.h.			
European G.P. Nurburgring 1st August 312 miles GRANDE EPREUVE	2nd GONZALEZ/HAWTHORN 625 with 555/735 engine 7th L. ROSIER 625 (Ecurie Rosier entry) Retired—Hawthorn, 625 with 555/735 engine, rear axle failure.	3rd M. TRINTIGNANT 625 8th R. MANZON 625 (private entry)	6th P. TARUFFI 625	
Swiss G.P. Bremgarten 22nd August 299 miles GRANDE EPREUVE	2nd F. GONZALEZ 625 with 555/735 engine Retired—Hawthorn, 625 with 555/735 engine, oil pump failure; Trintignant, 625 with 555/735 engine, engine failure.	7th U. MAGLIOLI 555	8th J. SWATERS 625 (Ecurie Francorchamps entry)	
Italian G.P. Monza 5th September 313 miles GRANDE EPREUVE	2nd M. HAWTHORN 625 with 555/625 engine Retired—Gonzalez, 555, gearbox oil seal failure; Ascari, 625 with 555 engine, broken valve; Manzon, 625 (private entry), engine failure.	3rd MAGLIOLI/GONZALEZ 625	5th M. TRINTIGNANT 625 with 555/625 engine	
Spanish G.P. Pedralbes 24th October 314 miles GRANDE EPREUVE	1st M. HAWTHORN 555 with coil spring front suspension Retired—Trintignant, 625 with 555 engine, engine failure; Manzon, 625 (private entry), engine failure; Swaters (Ecurie Francorchamps entry), engine failure.			
1955 Argentine G.P. Buenos Aires Autodrome 16th January 3 hours GRANDE EPREUVE	2nd GONZALEZ/FARINA/TRINTIGNANT 625 with 555 engine Retired—Trintignant, 625 with 555 engine, engine failure.	3rd FARINA/MAGLIOLI/TRINTIGNANT 625 with 555 engine		
Buenos Aires City G.P. Buenos Aires Autodrome 30th January 175 miles FORMULE LIBRE	Heat 1 1st G. FARINA 625 with 3-litre engine Heat 2 3rd M. TRINTIGNANT (all 625s with 3-litre engines) Final 3rd M. TRINTIGNANT Retired—Farina, after collision with Birger's Gordini.	6th C. BUCCI	5th F. GONZALEZ 625 with 3-litre engine 7th U. MAGLIOLI	11th U. MAGLIOLI
Circuit of Turin Valentino 27th March 235 miles	5th H. SCHELL 625 Retired—Farina, 625, gearbox trouble; Trintignant, 625, engine trouble.			
Bordeaux G.P. Bordeaux 24th April 188 miles	Retired—Farina, 555 Super Squalo, gearbox trouble; Trintignant, 555 Super Squalo, brake trouble; de Portago, 625 (works-supported private entry), overheating.			
European G.P. Monte Carlo 22nd May 195 miles	1st M. TRINTIGNANT 625 65.19 m.p.h. Retired—H. Schell, 555 Super Squalo, broken piston.	4th G. FARINA 625	8th P. TARUFFI/P. FRÈRE 555 Super Squalo	
Belgian G.P. Spa 5th June 315	3rd G. FARINA 555 S/S	4th P. FRÈRE 555 S/S	6th M. TRINTIGNANT 555 S/S	
Dutch G.P. Zandvoort 19th June 260 miles	5th E. CASTELLOTTI 555 S/S Retired—Trintignant, 555 Super Squalo, gearbox trouble.	7th M. HAWTHORN 555 S/S	11th J. CLAES 625 (Ecurie Francorchamps entry)	
British G.P. Aintree 16th July 270 miles	6th HAWTHORN/CASTELLOTTI 625 Retired—Trintignant, 625, engine failure; Castellotti, 625, rear axle failure.			
Italian G.P. Monza 11th September 311 miles	3rd E. CASTELLOTTI All with improved 555 Super Squalos. Retired—Hawthorn, improved 555 S/S, gearbox trouble.	6th U. MAGLIOLI	8th M. TRINTIGNANT	